DOCUMENT RESUME

ED 114 722 CG 008 678

AUTHOR Haldeman, Edward G.
TITLE Senior High Career Education Assessment Instruments Concerning Attitudes.
INSTITUTION New Jersey State Dept. of Education, Trenton. Bureau of Occupational Research.
PUB DATE Jan 74
NOTE 7p.

EDRS PRICE MF-$0.76 HC-$1.58 Plus Postage
DESCRIPTORS *Affective Tests; *Attitude Tests; *Career Education; Changing Attitudes; High School Students; Measurement Instruments; *Resource Guides; Secondary Education; *Test Reviews; Vocational Development

ABSTRACT

This monograph is an evaluation of instruments used to measure attitude change in high school populations. These instruments are also tools for information seeking, and for both individual and group counseling. The instruments evaluated are The California Life Goals Evaluation Schedules, The Occupational Aspiration Scale, Occupational Interests Self-Analysis Scale, The Self-Directed Search, and the Vocational Preference Inventory. Each of these instruments is first described briefly in terms of 14 categories of analysis, and is then given a narrative description, an evaluation of its strengths and weaknesses, and recommendations for use. (Author)

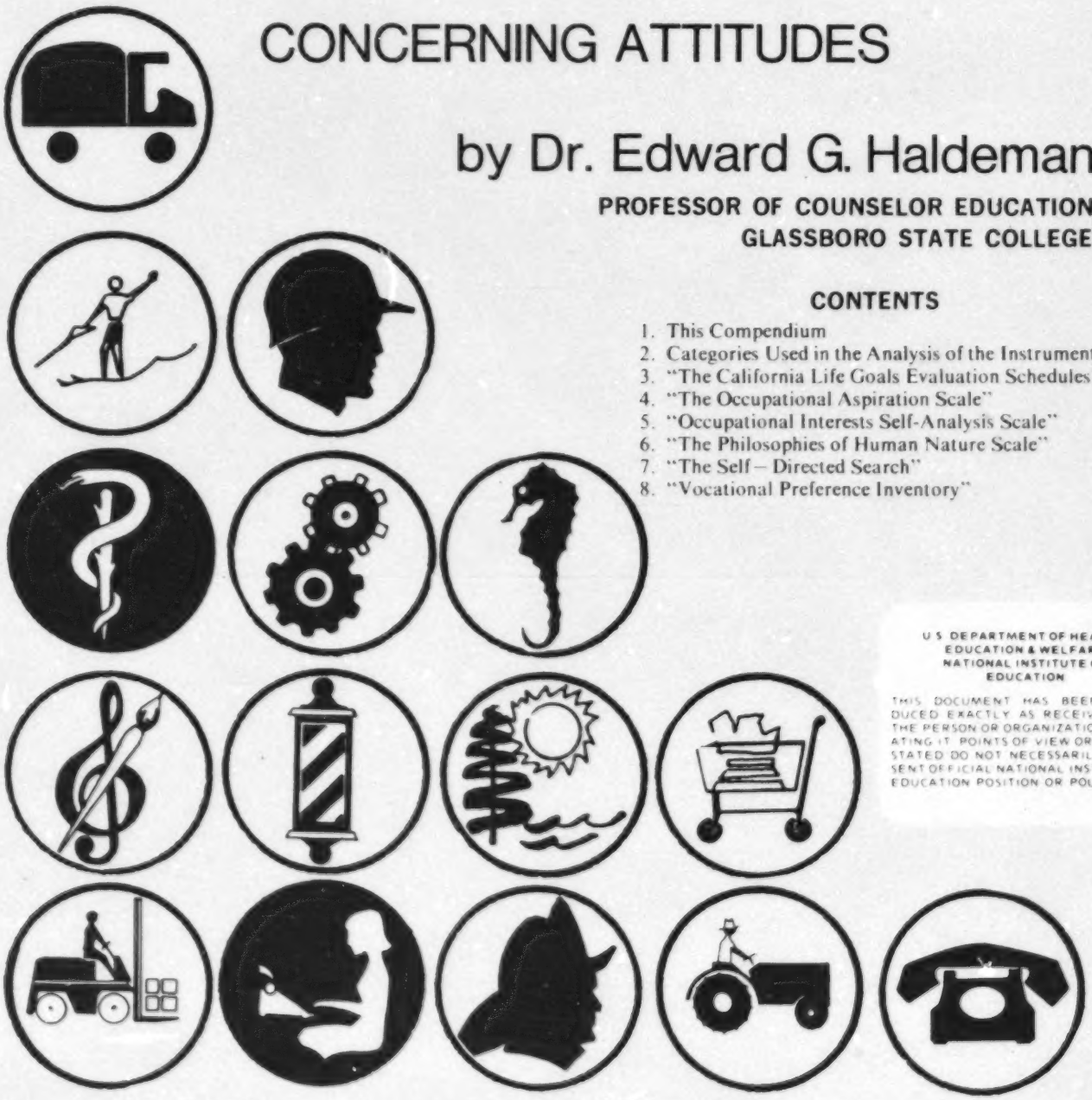
****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED114722

SENIOR HIGH CAREER EDUCATION ASSESSMENT INSTRUMENTS

JANUARY, 1974

CONCERNING ATTITUDES



by Dr. Edward G. Haldeman

PROFESSOR OF COUNSELOR EDUCATION
GLASSBORO STATE COLLEGE

CONTENTS

1. This Compendium
2. Categories Used in the Analysis of the Instruments
3. "The California Life Goals Evaluation Schedules"
4. "The Occupational Aspiration Scale"
5. "Occupational Interests Self-Analysis Scale"
6. "The Philosophies of Human Nature Scale"
7. "The Self – Directed Search"
8. "Vocational Preference Inventory"

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

CG 003 678

Bureau of Occupational Research Development • Division of Vocational Education
New Jersey State Department of Education • 225 West State Street • Trenton, New Jersey 08625

1. This Compendium

As a result of a wide search for appropriate Career Education assessment instruments in the affective domain suitable for grades 10, 11, and 12, this analysis and evaluation of six important instruments has taken form.

Time will soon provide us with yet other assessment instruments to examine. But for now, these are the leading alternatives.

Each instrument is first described very briefly in terms of fourteen characteristics, and is then given a more extensive narrative description, an evaluation of its strengths and weaknesses and some recommendations for use.

Samples of the assessment instruments may be examined at the N.J. Occupational Resource Center, Edison.

Suggestions for additions and corrections would be appreciated.

Readers are also urged to examine the following: *Measures of Occupational Attitudes and Occupational Characteristics* by J. Robinson, R. Athanasion and K. B. Head (Institute for Social Research, University of Michigan; now out of print). This is a very helpful research resource book primarily concerned with work attitude measures.

2. Categories Used in the Analysis of the Instruments

Validity: How well does it measure what it is supposed to measure?
Reliability: How consistently it measures what it is supposed to. Split half – Test – Retest (Kuder-Richardson)
Adequacy: Is all material represented?
Objectivity: Eliminates bias, opinions or judgments
Ease of Administration: Ease of time. Approximate number of minutes.
Scoreability: Simple, rapid and routine
Comparability: Duplicate forms – available adequate norms
Economy: Change of editions and cost
Utility: Satisfactorily serves a useful purpose
Interpretative: Can you interpret results to students, parents and teachers?
Usability: Not out-dated – norms are current
Attractiveness: Pleasing appearance – good size print
Reading Level: Recommended levels of use

3. "The California Life Goals Evaluation Schedules"

Author and Publisher – Dr. Milton E. Hahn, Psychologist Services
Validity – Still being researched
Reliability – Reported from .71 to .98 for different forms
Adequacy (All Material Represented) – Limited to around 50 occupational groups
Objectivity (Bias opinions, etc.) – The use of class systems can be very subjective.
Ease of Administration – About 45-60 minutes
Scoreability – Simple and objective
Comparability – Two forms DS and DM booklet form and a reusable booklet form
Economy – $5.00 specimen set
Utility – Very useful manual suggests areas for further research
Interpretative – Should be interpreted by project counselor or psychologist with caution
Usability – Current
Attractiveness – Well organized and attractive
Reading Level – Reading more suitable for adults. Some words and concepts would be difficult for usual high school population.

Description

The California Life Goals Evaluation Schedules is a 150 item inventory which refers to a person's social, economic, and political opinions. It comes in different forms such as Form D-S which is a six page booklet containing the ten schedules. This form is self-administering and self-scoring. Form D-M is a four page usable booklet which is used with an answer sheet. Included is a Schedule Scoring Keys booklet and a Personal Profile form which includes normative data for males and females. The manual describes the inventory, its development, administration, scoring, profiling interpretation, uses, and normative data.

The ten life goals which are called schedules are:

1. Esteem
2. Profit
3. Fame
4. Power
5. Leadership
6. Security
7. Social Service
8. Interesting Experiences
9. Self-Expression
10. Independence

The above goals are defined in the manual.

Research is still being done on the validity of the instrument and the author discusses content validity, concurrent validity, predictive validity, construct validity and face validity. Reliability coefficients are given.

The instrument is to be interpreted with caution.

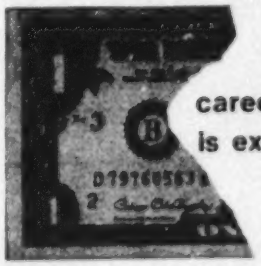
In the normative data, statistics are given for the following kinds of groups: male and female students, fathers and mothers of students, and grandfathers and grandmothers of students. Other norms are junior and senior Psychology majors in a state University (U.C.L.A.), general adults, and a large sample of senior high students.

The inventory purports to measure future direction in regards to career planning and identification of future activities. It can be administered and scored in about 45 minutes for most students.

This instrument was developed for use by the normal individual and is still recommended to be used experimentally for diagnostic or psychotherapeutic purposes. The age group recommended is 15 years old to senility.

Evaluation

Perhaps one of the critical areas in evaluation would be what kind of assumption and generalizations you can make from the normative data and the similarity or difference in



career confusion
is expensive

the respondent of the schedule. When you look at the normative data you see some of that weakness. The samples are not national but regional, also dealing with mostly middle and upper middle class values. In the high school norms the author states that there is a considerable loading of minority groups such as Negro, Mexican-American, and Oriental.

The author also suggests caution in using with students who are not college oriented. In the interpretation the author states that the subject will react to three different groups of schedules: Protestant Ethic Group, Social Group, and Creative Group. (Refer to the manual for a detailed description of these groups.)

Further research is needed in the normative group such as the ninth grade students, sex, achievement curricular, occupational groups, socio-economic, educational, industrial governmental and military groups.

Twenty-five entries are in the bibliography and would prove fruitful for anyone starting in researching in this area.

Recommendations

This instrument is useful as a counseling tool, especially where future career possibilities and motivation are concerned.

It can also be used as a classroom tool in discussing various aspects of motivation and to teach the schedule (goal concepts) – Esteem, Profit, Fame, etc. The author has also used this instrument as a self-study guide with adults, some of whom were married couples in upper middle and upper class individuals.

At this time it is recommended that it be used on an experimental basis only in the industrial or commercial setting or in government or military establishments.

This measuring device shows promise and is highly recommended for career educational developmental research. The weaknesses that it has would be the same as most new instruments coming on the market and users can develop their own special group norms.

4. "The Occupational Aspiration Scale"

Author and Publisher – Haller, Archie D. & Miller, L. W. Publishers; Dr. Alfred S. Schenkman, 3 Mount Auburn Place, Cambridge, Massachusetts 02138
Validity – No validity given. Probable construct validity good.
Reliability – .80
Adequacy (All Material Represented) – Limited to 80 occupations
Objectivity (Bias opinions, etc.) – Objective
Ease of Administration – 20 minutes
Scoreability – Very simple
Comparability – No duplicate forms. Limited normative data.
Economy – $1.95 specimen set
Utility – Yes
Interpretative – Yes
Usability – Current
Attractiveness – Simple to use
Reading Level – Fine for high school, however no definitions

General Description

The Occupational Aspiration Scale is an eight question multiple choice instrument covering 80 occupations.

The purpose of the scale is to measure levels of occupational aspiration. The sample for the study was 442 17-year-old boys enrolled in the Lenawee County school system of Michigan in the spring of 1957. Another sample of 117 male students was also used.

It takes about twenty minutes to administer and score and it can be administered either individually or in groups.

Strengths and Weaknesses

It is simple to use and simple to score. The occupational aspiration scale is probably a more efficient measure of levels of aspiration than either the free-response or existing multiple choice instrument techniques.

Of course the instrument is restricted to males, although further research is being done and females are expected to be added as a normative group. The population sample is restricted in number and geographic location. These restrictions will probably be overcome by more research.

The reading level should present no problem. There are no validity coefficients given, but the author says it's construct validity shows promise. (It's predictive reliability has yet to be proven.) Also, no job descriptions or definitions are given for the 80 occupations used.

Recommendation for Use

It will give a good indication of the student's level of aspiration and the scores can be grouped in high, medium and low categories. It has some value as a counseling tool, but at present its best use would be in career education research. When broader normative data is included and more experimentation done, it will be a more useful tool.

5. "Occupational Interests Self-Analysis Scale"

Author and Publisher – Eugene J. Benge; A. C. Croft Co., 1832 Franklin Street, Santa Monica, Cal. 90404
Validity – Not available
Reliability – Not available
Adequacy (All Material Represented) – Limited to 96 occupations
Objectivity (Bias opinions, etc.) – Objective
Ease of Administration – About 5 minutes
Scoreability – Simple scoring key
Comparability – No duplicate forms
Economy – $3.50 specimen set
Utility – Of dubious value
Interpretative – Difficult to generalize from
Usability – Dated copyright 1943
Attractiveness – Attractive
Reading Level – Appropriate for intended group

Description

This self analysis scale has two answer sheets, one for women's interest and one for men's. The scale is made up of 4 columns with 24 occupations in each column or a total of 96 occupations. The results are given in terms of interests in people, ideas, numbers and things. It should take less than five minutes to administer, either individually or in groups.

Evaluation

No manual came with the specimen set ordered, so little information can be gained concerning its research. It is limited to only 24 occupations in each category and it is assumed that the author must believe that these are discrete categories. However, many occupations utilize 2, 3, or all of the combinations of these factors in the job performance.

Nothing is said of its validity and reliability. No information is given on its normative groups.

No standard scores of any kind are used and the results from scoring tell you whether you have an (++), exceptional interest; (+) strong interest; (N) normal interest; or (-) disinterest in jobs dealing with: P-People, I-Ideas, N-Numbers or T-Things. No underpinning research rationale is given for its structure.

Recommendation

From the vocabulary used the author suggests that the populations it is to be used with are workers or applicants. No age or grade information is given.

On the scoring Key the author does mention "that studies reveal that a lack of interest in work is quite as likely to cause failure as the lack of ability", but the studies and authors are not footnoted. This is a very weak instrument and could only be used on a local basis where some kind of normative data could be built. It is recommended that it be used only for research purpose and it does not seem likely to be of much advantage in a career education development program. There are too many better instruments on the market.

6. "The Philosophies of Human Nature Scale"

Author and Publisher – Dr. Lawrence S. Wrightsman and Ms. Christine H. Satterfield, Box 512, George Peabody College for Teachers, Nashville, Tennessee 37203

Validity – Validity strong

Reliability – Moderate

Adequacy (All Material Represented) – Covers six philosophical scales

Objectivity (Bias opinions, etc.) – Objective

Ease of Administration – Up to one hour

Scoreability – Simple

Comparability – No alternate forms

Economy – $3.00

Usability – Still a research tool

Interpretative – No interpretative or administrative manual. User would have to use the research.

Usability – Current

Attractiveness – Simple and mimeographed

Reading Level – Adequate for adults

Description

The Philosophies of Human Nature Scale (PHN) attempts to measure a person's beliefs about human nature and specifically, his beliefs about the interpersonal aspects of human nature. The scale comes up with scores in the following areas: trustworthiness vs. untrustworthiness, altruism vs. selfishness, strength of will and rationality vs. lack of will power and irrationality, independence vs. conformity, simplicity vs. complexity, and similarity (between people) vs. variability.

There are 84 questions in the scale and the scale has been administered in 20 colleges and to nine occupational groups. Males and females comprise the normative data as well as some blocks. The nine occupational groups were:

1. Ministers
2. U.S. Marines
3. Guidance Counselors
4. Nurses
5. Social Workers
6. Teachers
7. School Administrators
8. Medical School Students
9. Delinquent Adolescent Girls

It takes about one hour to administer and the scale can be administered singly or in groups.

Strengths and Weaknesses

The normative data is large in numbers, but the colleges used were mainly southern colleges and many of them are religious schools.

The split-half reliability coefficients found were moderate for undergraduate and graduate samples. The test-retest coefficients with a three month interval were generally favorable. (See Table 1 and 2 for individual reliability coefficients) Wrightsman, L.S., "Measurement of Philosophies of Human Nature," *Psychological Reports*, 1964; 14:743-751.

The PHN scales were correlated with scales of Political Cynicism, Faith in People and Macheavellian Scale for validation. The scale appears to have construct validity and predictions relating the scale to sex differences, self-ideal discrepancies, differences in religious background and evaluations of one's instructor have been borne out. The scale discriminates to some degree between student groups at different colleges and universities.

There is available a bibliography with 165 research studies.

Recommendations

This is still an experimental scale. For a three dollar fee the author will send a complete specimen set with the permission to reproduce anything included in any amount. Since much of the data is at the college level it would be more appropriate to use it with that age level student. Much research is needed on the values and philosophies of people and occupational predictions and success. This instrument could also be used as a teaching device in a career or guidance class as the concepts and ideas of the instrument could be discussed in relationship to on the job performance and success.

Much research is needed on man, the psychological, sociological and philosophical person as a worker and this instrument might be helpful in adding to man's knowledge.

7. "The Self-Directed Search"

Author and Publisher – John L. Holland, Publisher, Consulting Psychologist Press
Validity – Still in the research process
Reliability – Moderate
Adequacy – (All Material Represented) – Covers 95% of working force
Objectivity (Bias opinions, etc.) – Objective and private
Ease of Administration – One class period – up to 50 minutes
Scoreability – Simple, but students may need some help
Comparability – Does not apply
Economy – $2.50 specimen set
Utility – Very
Interpretative – Self-interpreted, but professional help useful
Usability – Ideal for career development use
Attractiveness – Simple to use and attractive
Reading Level – Adequate for adults
Comments – Recommend for use with people over 15 years of age

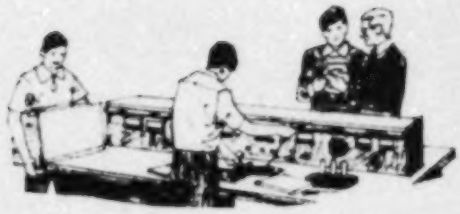
General Description

The Self-Directed Search is an ideal career educational development tool. As seen by the title, the major emphasis is on self-exploration and self-discovery. The instrument is self-scored, self-profiled and self-interpreted. It includes the assessment booklet, the Occupational Finder and a counselors guide. It readily fits into the school classroom time structure as it can be taken in a class period of up to 50 minutes. It can be taken individually or part of a group or career education class. The author's two main purposes of the Self-Directed Search are that it provides a vocational counseling experience for students who do not have access to a counselor and it can multiply the number of people a counselor can serve.

The assessment booklet follows Holland's theory of vocation choice and is broken down into his six personality types. The sections are: 1. Occupational Day Dreams, 2. Activities, 3. Competencies, 4. Occupations and 5. Self-Estimates which determines a person's resemblance to Holland's six types of: 1. Realistic, 2. Investigative, 3. Artistic, 4. Social, 5. Enterprising and 6. Conventional. When added up it comes to 228 items.

The booklet takes the student step by step through the process. Following the assessment there is a section on *How to Organize Your Answers*, which leads you to a profile and shows you how to determine your summary code. Also included in the booklet is an eight-item bibliography and an explanation sheet for the summary code. What makes this a practical tool is a page titled, *Some Next Steps* which leads the student to 10 alternative courses of exploratory action. The last thing in the assessment booklet is a Duplicate Summary Page, for the counselor, administrator or for the cumulative folder.

On the self-estimates graphs the users are asked to rate themselves from 1-7 which are marked low, average and high on such traits as: 1. Mechanical Ability, 2. Scientific Ability, 3. Artistic Ability, 4. Teaching Ability, 5. Sales Ability, and 6. Clerical Ability. The other graph consists of: 1. Manual Skills, 2. Math Skills, 3. Musical Ability, 4. Friendliness, 5. Managerial Skills and 6. Office Skills. All the twelve traits are related to Holland's six personality types (RIASEC).



The Occupational Classification Booklet contains 414 occupational titles, which covers over 95% of the labor force in the United States. The occupational titles are arranged by and coded according to the six personality types. Each occupational sub-class is also arranged according to the level of Educational Development (GED) that an occupation requires. The Dictionary of Occupational Titles number is given for most occupations.

Strengths and Weaknesses

This instrument is an ideal career educational development tool. Anyone can use the instrument whenever he wants to and with privacy. The author claims that since it is always controlled by the user, people enjoy the experience and the learning experience usually is not marred by interruptions or conflicts with others. It is extensive in scope. The user is not dependent upon scoring services, computers or appointment difficulties. The instrument is scientifically based on an outgrowth of Holland's theory of vocational choice. The inventory can be repeated and periodic stock-taking is consistent with a developmental conception of career development.

The reading level is easy, but the author feels it should be used with students 15 years of age or older.

Unlike most exploratory devices, this one has four major safeguards such as: 1. The individual's resemblance to the six personality types is determined five times. 2. The personal assessment is used in a conservative fasion in that a person searches for all permutations of his three letter summary code, not just one. 3. The client compares his summary code with the codes of his occupational daydreams. If they are not congruent he is encouraged to seek further counseling. 4. The user is repeatedly encouraged to seek professional counseling for further information and help. A major portion of the counselor's guide deals with technical matters such as validity, reliability, other statistical data and the manual concludes with a reference of over 25 research studies and an alphabetical listing of the occupations used with their code numbers (DOT), general educational development level (GED), and Holland's occupational classification (HOC).

Perhaps the only weakness this author found was that the personality terms of Realistic, Investigative, Artistic, Social, Enterprising and Conventional are not really defined for the user. Maybe Holland had a specific reason for not doing this, but it is not mentioned in any of the manuals.

Recommendations

The Self-Directed Search can be used in ways other than previously mentioned, such as: part of an orientation program, part of a pre-registration program, with clients seeking vocational counseling, with adults seeking new careers. It can also be used as an instructional device in a classroom setting and it is especially helpful in developing curricular clusters.

This guidance tool is ideal for career educational development either group administered or individually administered. The person taking this can work while his motiva-

tion lasts and can leave it and come back to it again. The author suggests that the person taking the inventory repeat the process from time to time as new human dimensions will be revealed and new concepts and ideas will come to the surface. In the list of career educational development assessment techniques and tools this instrument should rate high.

8. "Vocational Preference Inventory"

Author and Publisher – Dr. John L. Holland; Publisher, Consulting Psychologist Press
Validity – Construct & predictive validity good.
Reliability – Moderate to high reliability
Adequacy (All Material Represented) – Limited to 160 occupations
Objectivity (Bias opinions, etc.) – Objective
Ease of Administration – 30 minutes
Scoreability – Very simple
Comparability – No alternate forms
Economy – $2.50 specimen set
Utility – Yes
Interpretative – Interpreter needs professional training
Usability – Current
Attractiveness – Simple
Reading Level – Adequate for adults
Comments – Should be used with people over 14 years of age with no brain damage and in conjunction with other data.

General Description

The Vocational Preference Inventory is called a personality inventory by the author. The Inventory consists of a 160 occupational titles; the student indicates those that appeal to him, those he dislikes and the ones he is undecided about. The inventory is self-administering and takes about 30 minutes maximum for most students. It is recommended for students over 14 years of age, within the normal intelligence range. It yields scores in such areas as: 1. Realistic Scale, 2. Intellectual Scale, 3. Social Scale, 4. Conventional Scale, 5. Enterprising Scale, 6. Artistic Scale, 7. Self-Control Scale, 8. Masculinity Scale, 9. Status Scale, 10. Infrequency Scale, and 11. Acquiescence Scale.

The Sampling population is numerically high and broad including normal and abnormal people with 18 reference groups such as: 1. Male and Female College Freshmen, 31 diverse institutions, 2. Employed Male Adults (majority college grads), 3. High School Seniors (National Merit finalists), 4. College Freshmen (Kansas State University – male and female), 5. Research Personnel (engineers and technical college grad majority), 6. Accidental Sample (majority college grads), 7. Security Salesmen (majority college grads), 8. Central State College (Ohio) (male and female Negro college students), 9. Veterans Administration Hospital Aides (male and female), 10. University of Maryland Freshmen (male and female), 11. Advertising Agency Personnel, 12. Port of New York Authority (supervisors and subordinates), 13. Employed adults (Pen Mfg. Co.), 14. Employed adults (Chev. Corp.), 15. Drug addicts (male and female, majority did not finish high school), 16. Psychopaths (males), 17. Psychiatric Patients (Veterans Administration Hospital, male adults, majority did not finish high school), 18. T.B. patients, (V.A. Hospital, males, 9.9 school years).

The rational basis for the inventory is that reliable and relevant data about a person's motivations, knowledge, abilities and personality can be obtained from responses to selected occupations. That people perceive occupational titles and occupations in stereotyped ways. That the interaction of the person and his environment creates a limited number of selected methods of dealing with interpersonal and environmental problems. That the development of satisfactory adjustive techniques requires accurate discrimination among potential environments and that this discrimination is important for mental health. That the total number of preferred occupations is a function of a number of personality variables. That the person who cannot make discriminations between occupations is under conflict and disorganized self-understanding. Concluding, the manual states that interest inventories are personality inventories.

Strengths and Weaknesses

The inventory does show construct validity and predictive validity. The inventory does differentiate normal, psychiatric and TB patients, between psychotic and non-psychotic. Some of the scales are significantly correlated with supervisory ratings and job satisfaction. The Vocational Preference Inventory has also been intercorrelated with several personality inventories and scales (see Manual and appendix for break-down of coefficients and specifics). The VPI has had moderate success in predicting choice of major field and vocation over one and two year intervals for students of high aptitude.

The author cautions that the person using the inventory should be a professional who has been thoroughly trained and familiar with this instrument. The manual includes a section on interpretation which the counselor will find to be very helpful. An extensive research bibliography and appendix is included for those desiring further information and help.

Recommendations

The major purpose of the Vocational Preference Inventory is for personality assessment. It can also be used: as an interest inventory; as an inventory to assess the personality types as related to theories of vocational choice; and as an occupational exploratory device for high school and college age level students. The author recommends the Vocational Preference Inventory as a brief, screening inventory; however, this author feels that it would be an excellent counseling tool and would open many avenues for exploration counseling.

Its wide variety of normative group types gives it some versatility and makes it also a good research tool for the personality aspects of career development.

The inventory would be very useful in a career educational development or group guidance class as a teaching and motivational tool to assist the student with new concepts and new vocabulary in understanding the relationship between various personality factors and occupations.

Edward W. Kilpatrick III, Acting Commissioner of Education
Stephen Poliacik, Asst. Commissioner of Education
Harold Seltzer, Assoc. State Dir. of Vocational Education
Joseph Kelly, Dir., Bureau of Occup. Research Development
••••
Edited by Edwin G. York
Coordinator, N.J. Occupational Resource Centers